

Math 1110: **Continuity**

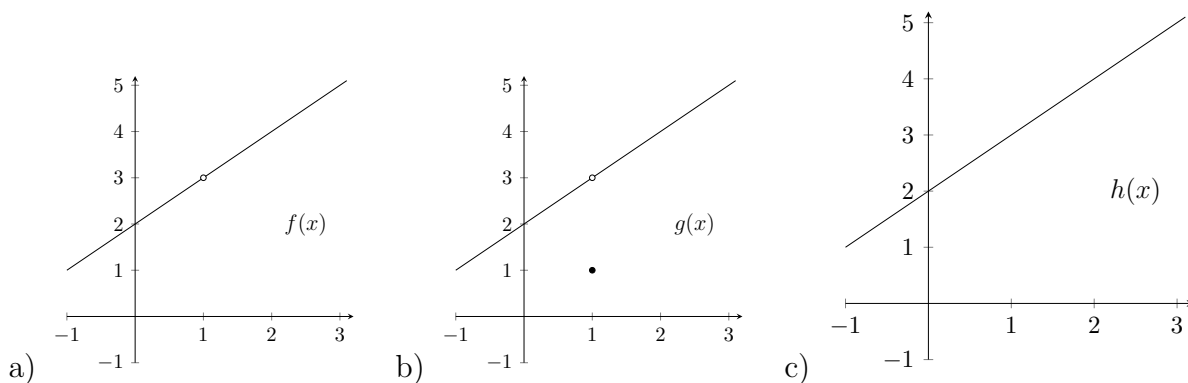
Sept 7 (Fri) - Preclass

Created by S. Bennoun, M. Hin, and T. Holm ©, modified by Yuwen Wang

Our goal here is to inquire the notion of continuity.

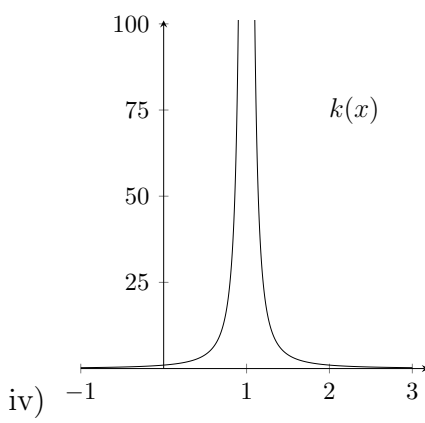
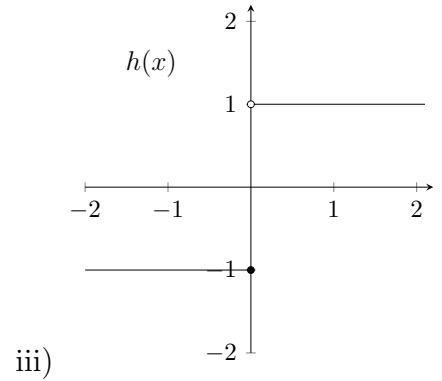
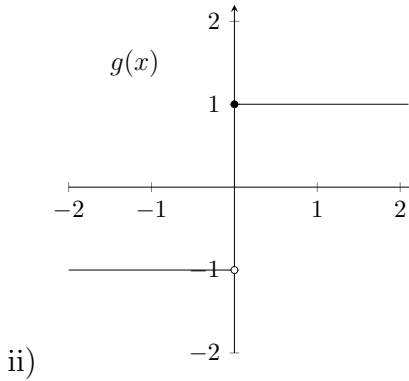
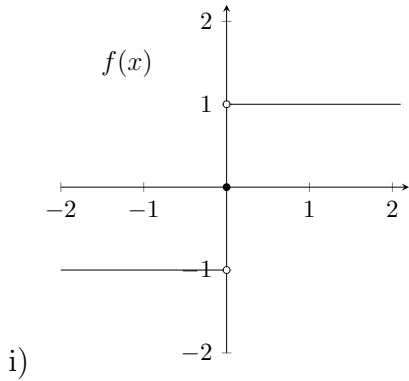
1. What are two “real life” phenomena that are continuous and two that are not continuous?

2. Look at the following graphs (that come from the first worksheet on limits), which one(s) look continuous to you?



3. In each case, compute the limit as x goes to 1 as well as the values of the functions at one. Do you notice any pattern?

4. Again, looking at the following graphs, which one(s) look continuous to you? Do some of them look or “half-continuous”?



5. For $f(x)$, $g(x)$ and $h(x)$ compute the limit as x goes to 0 as well as the value of these functions at 0. Does the side you come from make a difference?
 For $k(x)$, compute the limit as x goes to 1 as well as the value of the function at 1.